

## USING CIRCUITS ON MINIMALIST PRESCHOOL LAND TO ASSIST WITH GROSS MOTOR PHYSICAL ACTIVITIES

**Hariyanto Hariyanto, Miftahul Alimin, Mohammad Tohir**

Universitas Ibrahimy, Indonesia

hariyantolppm@gmail.com

**Abstract:** The physical gross motor was the focus of this commitment. There are 37 percent minimalist schools in Malang. As a result, it is unable to conduct motor physical activities optimally. That difficulty was solved by implementing a circuit. To aid in the physical development of gross motor skills. Despite the fact that it was a minimalist school. Teachers can create circuits in their classrooms after receiving training. Material used in child-safe circuits. The material used can be saved. and used once more.

**Keyword:** Circuits, Minimalist Preschool, Gross Motor, Physical Activities

### Introduction

Malang's suburbs are in direct communication with Batu City. There are numerous preschool educational institutions in the cool area, but many of them do not meet the PAUD DIKMAS criteria for facilities, infrastructure, and land space. According to Minister of Education and Culture Regulation Number 137 of 2014 about Standards for Early Childhood Education (PAUD), a number of

required facilities and infrastructure must be satisfied, including a kindergarten space of at least 300 square meters for the entire building and land. Meanwhile, the quantity of space and land area required for Playgroups and Daycare Parks must be adjusted to the number of children, with a minimum size of 3 square meters per kid.<sup>1</sup>

Permendikbud Number 137 of 2014 states that an ideal kindergarten must have at least a teacher's room, a school principal, UKS (School Health Business) with P3K (First Aid in Accidents) completeness, and a latrine with clean water that is easily accessible by children under the supervision of a teacher. The facilities mentioned above are standard facilities and infrastructure for preschool institutions, but not all institutions meet these standards, especially 3 meters of space per child. Space for movement is a necessity that must be met because according to Montessori, kindergarten-age children are a golden period in developing all aspects of development in children, including gross motoric physique. Children need a place to run, jump and jump to express themselves and their natural needs, if land standards are not met, it will interfere with the process of gross motor physical development. According to data from Dapodik 2018, there are 43% of preschool

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<sup>1</sup> Dudek, M. (2014). Kindergarten architecture. Taylor & Francis.

institutions in Karangploso District that globally do not have standard land as described by PAUD-DIKMAS or less than 3 meters of space per child, so that gross motor physical learning does not run optimally.<sup>2</sup>.

Data on preschool institutions in Karangploso District which globally do not have standard land as described by PAUD-DIKMAS or less than 3 meters of space per child, can cause gross motor physical learning not to run optimally, even though stunted development will result in disrupted further development. . Gross motoric physical abilities greatly affect daily activities. These abilities must be stimulated, because gross motor skills and or basic movements such as locomotor, non locomotive, and manipulative movements which are used as the basis for the development of children's gross motor skills can develop with stimulus.<sup>3</sup>

Locomotor movements are movements that require moving from one place to another when the body is moving. Non-locomotor motion is movement that is carried out in place without moving.

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<sup>2</sup> Liu, T., & Breslin, C. M. (2013). Fine and gross motor performance of the MABC-2 by children with autism spectrum disorder and typically developing children. *Research in Autism Spectrum Disorders*, 7(10), 1244-1249.

<sup>3</sup> Awalya, M. (2012). Benefits of Early Childhood Education for Personal Development and Children Social. *Indonesian Journal of Early Childhood Education Studies*, 1(2).

While daily activities require the coordination of these two movements, without proper training and stimulus, children will not develop their gross motor skills optimally.

Child growth is followed by brain growth, because it requires coordination between muscles and the brain, which is called sensation. It doesn't stop there, sensation creates perception, children will think about what is being done and what will be done. Coordination of muscle and brain development will develop five aspects of child development as well because according to Montessori kindergarten age is a period of brain absorption, so that all aspects of child development such as cognitive, language, psychomotor, social emotional, art and religious moral values will develop.<sup>4</sup>

## **Method**

This service assistance uses participatory research or participatory research, is a combination of social research, educational work, and political action using the concept of

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<sup>4</sup> Anderson, K., Raikes, A., Kosaraju, S., & Solano, A. (2017). National early childhood care and education quality monitoring systems. The Brookings Institution Massachusetts Ave. NW Washington. April 2017. P, 34.

participatory research in the context of historical materialist methodology.<sup>5</sup>

### **Planning**

1. Mapping which areas have minimal land institutions.
2. Search for contacts
3. Develop plans and solutions

### **Implementation**

1. Contacting the local education office to communicate and find contact with the principal who has a minimalist opposite institution using the dapodik data contained in it.
2. Contacting the principal who has a minimalist land institution and invites discussions to offer solutions.
3. Conduct field observations, map the criteria for institutions with minimalistic land and not, if children can still move freely in the school yard and or institutions have a standard of 3 meters per child such as the PAUD DIKMAS standard, this solution cannot be carried out.

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<sup>5</sup> Hall, B. L. (1992). From margins to center? The development and purpose of participatory research. *The American Sociologist*, 23(4), 15-28.

4. Conducting interviews with schools and teachers about the implementation of motorized physical activity so far.
5. Looking for a suitable circuit model solution to be applied in a minimalist area.
6. Implementation and evaluation To monitor and evaluate the efforts that have been made to see the extent of their effectiveness and efficiency.

## **Results and Discussion**

The results of field observations show that there are 21% of preschool institutions that have minimalist land. Some schools that have minimalist land are located in minimalist villages and housing. Institutions located in villages have an area of less than 3 meters per child and do not have a large yard. The average yard owned by the institution is only 2 x 0.5 meters. Very difficult to use to develop gross motor physical activity. Children can only line up, back and forth and jump, while flexibility, agility, strength, speed and balance activities are difficult to do simultaneously.

The risk of institutions that carry out physical motor activities optimally is to interfere with the activities of surrounding people such as neighbors who feel noisy with children's voices, if children

are placed in the field they will travel quite a long distance and take time, while institutions located in housing locations , it is very risky to invite children to be active on the road even though the road in housing is empty of vehicles. Activities will be stopped if there are vehicles passing by, as well as children's activities disturbing local residents.

After going into the field and making observations, the next step is to develop a plan according to the problems found from the initial observations. This mechanism is implemented to encourage shared learning between the institution and the service provider. The two parties held a meeting to reflect and plan a solution together. Through this forum, each party is encouraged to identify the problems they face and is facilitated by the institution to find solutions together.

The next stage is the implementation of the plan that has been discussed. According to the results of the discussion, the application of circuits for gross motor physical learning is deemed appropriate to be applied in preschool institutions with minimal land or less than 3 meters of space per child. The circuit is designed to optimize gross motor physical development such as flexibility, agility, speed, balance and muscle strength of children. This circuit is designed to be

stored after use, thus saving costs and can be applied in minimalist areas such as small terraces that do not allow the implementation of early childhood education standards such as 3 meters per child and or schools that do not have terraces, so they can still carry out physical motor activities with ease. optimized through circuit assistance.

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The next stage is to provide training to teachers and principals about the importance of developing gross motor physical activity, as well as the risks if it is not developed optimally. The training is not only intended for teachers and principals who have minimal land, but all teachers and principals in Karangploso sub-district. The training was divided into 3 groups, namely for teachers and principals of TK, RA and PAUD. The training material is also not limited to the development of motoric physical activity, but how to



design circuits, especially in a minimalist area that does not allow children to move freely.

The next stage is the action stage. Teachers and principals who have minimalist land design circuits to make it easier to develop gross motor activities. Circuits are designed with several posts, because there are several posts that is called a circuit. circuit making is designed to adapt to a minimalistic land, each of the relevant parties working together in designing the circuit before it is applied to children.

The implementation of the development of gross motor physical activity went without significant revision. Teachers choose objects that are safe for children to use. Aspects of balance, flexibility, muscle strength of the hands and feet, agility and speed can be applied entirely through the circuit. In the balance activity, some teachers chose to use a series of rubber bands that were stretched straight on the floor, some were stretched in turns. In this activity the child is asked to walk in the direction of the rope. Balance activities are also added by placing objects above the head while walking straight or twisting following the rope. Objects that are above the head are made of cork which is safe for children if thrown and hit children.

The next activity is to move the ball with only two colors, red and blue. Children stretch out with their legs straight and transfer the ball by bending over. This is intended so that the back position is flexible, because according to Montessori, the bent back position is due to daily activities, so it is necessary to be given exercise so that the back position avoids problems.<sup>6</sup>

The activity in the next post is a short zigzag run, adjusting the area of the place. Although not so extensive, zigzag running activities provide a stimulus for children about speed. Children can measure and estimate their speed on a turning or obstacle course. The material used in this post is an old bottle filled with sand to prevent it from collapsing. Some teachers also use colorful water funnels that are reversed for easy storage. Not just a zigzag run. Several teachers from other institutions modified the activity by carrying small flags during a zigzag run and sticking them in colored glasses according to the color of the flag they were carrying.

So in the post with zigzag running activity there is also color grouping activity. The materials used are not harmful to children

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<sup>6</sup> Al Junaibi, N., & David, S. A. (2015). The Role of a New School Model in Abu Dhabi: Towards a Student-Centered Classroom. Including the Other: Acknowledging Difference in Education, Language and History, 64.

because they are made of plastic. The next post activity is crawling. Crawling requires muscle strength in the legs and arms. The material used for crawling is a puzzle as a base. Puzzles are not dangerous because they are made of sponge. It will not hurt the child if someone throws the object. The activity at the last post is to put the ball into the ring. The ball and ring are small because the space is narrow. This activity is a form of dexterity and hand strength as well as the accuracy of the child in entering the ball into the ring.

### **Impact of Change and Results of Service**

As for the impact of changes in the results of the service, among others: First, preschool institutions that previously did not perform gross motor physical activity optimally, can now do so in an optimal way through the help of circuits that can be applied in minimalist land. Second, the activity uses materials that are cheap and harmless to children, so these materials can be stored and reused. Third, teachers and school principals understand how important gross motor activities are in daily life through the training provided, they can even design circuits to be implemented in their respective institutions, even though the initial target was institutions that had minimal land or those that did not. Terrace. Fourth, because learning

in preschool is thematically integrated, in addition to the gross motor skills that are developed, there are other developments that can be stimulated. Namely, social emotional development from learning to queue, language from conversations with teachers and friends when playing circuits, cognitive when playing colors in circuit activities and religious moral values obtained when praying before starting and ending playing circuits.

## **Conclusion**

The focus of this service is to solve the problem of gross motor physical activity in minimalist land or institutions with minimalist land, so that they cannot develop gross motor physical activity optimally. The non-optimal stimulus will result in further developments. Before the circuit design was implemented, the principal and teachers were given training in advance about the importance of the stimulus for gross motor physical activity, then they could design a circuit for a minimalist area.

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